

Method and Apparatus for Semiconductor Wafer Planarization

ABSTRACT OF THE DISCLOSURE

Broadly speaking, the present invention provides a method and an apparatus for planarizing a semiconductor wafer ("wafer"). More specifically, the present invention provides for depositing a planarizing layer over the wafer, wherein the planarizing layer serves to fill recessed areas present on a surface of the wafer. A planar member is positioned over and proximate to a top surface of the wafer. Positioning of the planar member serves to entrap electroless plating solution between the planar member and the wafer surface. Radiant energy is applied to the wafer surface to cause a temperature increase at an interface between the wafer surface and the electroless plating solution. The temperature increase in turn causes plating reactions to occur at the wafer surface. Material deposited through the plating reactions forms a planarizing layer that conforms to a planarity of the planar member.